

## *Carex wiegandii*

### Status

Federal status: G3 N3, Not listed

NH state status: S1S2, Threatened; proposed for endangered status (5/03)

ME state status: S3, Special Concern

This species has probably always been rare and the G3 rank is partly natural. The northeastern U.S. has a significant portion of the global population for this species. There is little information other than ranks to indicate trends or level of concern.

The expert panel indicated that the current viability outcome is probably B-C range-wide and on the Forest. There has been loss of wetland habitat but no known habitats in the Forest are threatened and wetlands are receiving increased protection everywhere. Future outcomes were not provided but should not change since habitats are not threatened.

### Distribution

This species occurs from Labrador south to New Jersey, west to Michigan, and north to Quebec.

New Hampshire has 3 known extant (Lincoln and Livermore) and 6 historic occurrences (Hollis, Ossipee, Sandwich, and Pittsburg). All three extant occurrences are in the WMNF. In Maine, there are 27 extant and 11 historic occurrences documented in 11 of 15 counties. The only Oxford occurrence is historic from Dixfield. None of the Maine occurrences are in the WMNF.

### Habitat

*Carex wiegandii* can occur in both stable natural communities with infrequent disturbance (ie bogs and poor fens) and dynamic natural habitats such as openings in forested peatlands and graminoid swales, or disturbed sites (ie borrow pits, log landings, ditches, trails, power corridors, and wet circumneutral pastures). It prefers open peatlands to other wetland habitats, though it likes coniferous swamps. In forested areas, it needs an open understory. It is usually associated with organic soils. *Carex wiegandii* is often found in nutrient poor, acidic to intermediate habitats. It is found in coastal peatlands and in higher elevation wetlands; documented in NH at 2200-2900' elevation.

This species will tolerate disturbance, but does not need it. It appears to take advantage of disturbance that sets back succession in peatlands and other habitats. In naturally dynamic habitats, relatively frequent beaver activity, windthrow, storms, droughts, animal trails, herbivory, logging, and fire can disturb soils and create suitable openings in woody canopies. However regular heavy disturbance or changes to local hydrology can make habitat unsuitable.

### Limiting Factors

Suspected population declines since presettlement times are probably due primarily to habitat loss from agriculture and development.

Succession is a threat to several current populations in bogs, forests, and road corridors. Changes to hydrology, from beavers, dams, road construction, and development, can make habitat unsuitable and impact populations.

In powerline corridors, uninformed herbiciding and mechanical control of woody vegetation, and recreational use by off-road vehicles can harm populations. Invasive species, such as *Phragmites australis*, can alter habitat suitability and impact populations. Individual populations have been limited by browsing.

#### Viability concern

The global and national rankings and documentation on the WMNF make it an automatic Regional Forester's Sensitive Species for the Forest. The WMNF contains 100% of the known, extant New Hampshire occurrences.

#### Management activities that might affect populations or viability

Timber harvest and road and trail construction can create suitable openings in forested wetlands and damp forests. However care must be taken not to impact the local hydrology, which can eliminate habitat, or cause the spread of invasive species that can alter wetland habitat.

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